

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 16. (canceled).

17. (currently amended): An analytical model ~~preparing~~ producing apparatus comprising:

means for entering a shape model to be analyzed;

a database which maps each of a plurality of shape models previously made together with analytical hexahedron mesh models corresponding to the shape models previously made;

a degree of approximation calculating means including:

means for ~~preparing~~ producing associated information of shape elements by comparing shape elements in the shape model to be analyzed with shape elements in the shape models previously made and associating the shape elements in the shape model to be analyzed with the shape elements in the shape models previously made,

means for calculating a degree of approximation of the shape elements of the shape models previously made based on the number of shape elements of the shape model to be analyzed and the number of shape elements of the shape model previously made associated with the associated information of the shape elements,

means for displaying sequentially the shape models previously made from larger to smaller degrees of approximation on a display screen, and

means for selecting, in response to an instruction, at least one of the shape models previously made from among said shape models previously made displayed; and

an analytical model ~~preparing~~ producing means for ~~preparing~~ producing an analytical hexahedron mesh model of the shape model to be analyzed ~~by use of attribute information prepared for the analytical mesh model corresponding to which~~ has a number of divisions of a ridge and a direction of ridge arrangement corresponding to the number of divisions of the ridge and the direction of ridge arrangement of said shape model previously made selected by the means for selecting, in accordance with the associated information of the shape elements between the shape elements in the shape model to be analyzed and the shape elements in the shape models previously made.

18. (currently amended): An analytical model ~~preparing~~ producing apparatus according to claim 17, wherein said degree of approximation calculating means includes means for comparing an intrinsic identifier of the shape element in the shape model to be analyzed with intrinsic identifiers of the shape elements in the shape models previously made, and associating the shape elements having the same identifier with each other.

19. (currently amended): An analytical model ~~preparing~~producing apparatus according to claim 17, wherein said degree of approximation calculating means includes means for comparing topological information of the shape element in the shape model to be analyzed with topological information of the shape elements in the shape models previously made, and associating the shape elements having the same topology with each other.

20. (currently amended): An analytical model ~~preparing~~producing apparatus according to claim 17, wherein said degree of approximation calculating means includes means for comparing coordinate values of the shape element in the shape model to be analyzed with coordinate values of the shape elements in the shape models previously made, and associating the shape elements having the same coordinate values with each other.